



## **Step #6 "Point and Throw-bar Installation"**

Slip the "Throw-Bar" beneath (under) the stock rails into the "Tie Block" segment of the "Head-Ties". Place the point "Retainer Plate" between the points onto the "Throw-Bar" and test for fit and movement. The point retaining plate may need slight trimming for proper fit. Some fitting, bending, and even slight twisting of the points may be necessary to get them properly fitted. This process will become less frustrating with practice and experience. The point material is quite soft and can bend easily in your fingers - be gentle! There is a spare "Retainer Plate" in case of a fitting error. Getting this part right may take some time, but it must be correct for the switch to work smoothly.

Choose what activation linkage you will use. If the linkage uses a throw rod that engages the "ears" on the point "Retainer Plate" (Between the points), the retainer plate need **not** be cemented in place. This technique allows the points and "Throw-Bar" to be disassembled for repair and replacement. "Not a bad way to go". - See sketches for other linkage options.

If necessary, cement the "Retainer Plate" to the "Throw-Bar" with **tiny** precisely placed dabs of "AC" cement. It is best to dab from the **inside** of the "Retainer Plate" **openings** to the visible "Throw-Bar" surfaces. Push the "Retainer Plate" down with a small blunt tool until the cement sets one side then the other. (One-side-at-a-time).

## **Step #7 "Closure Rails"**

Cut and form the closure rail(s) to fit. Do the curved rail first as it is the longest and if a mistake is made it can be straightened and re-cut to fit the slightly shorter and straight rail. De-burr and slide each rail under the "Frog Block". Secure the point end with spikes or glue one tie space away from the "Foil strips" with fast acting "AC" cement. Again, refer to the spike schedule. Only minimal spiking is necessary. **Do not forget** to clean the underside of any "weathered" rail product in the "Foil Strip" areas.

## **Step #8 "Frog Point"**

Two (2) short pieces - (2 inch to 6 inch) each of rail are required. File a sharp point on one side of one piece of rail until you can slide all-the-way into the "Frog Block". File the opposite side of the second rail until it can be wedged against the first piece (filed side to filed side) with a smooth looking "V" inside and out. (Keep filing until you are happy with the look, there is plenty of rail to work with here!) Add insulation as required, and spike, or glue the rails in place on the "Tie Block". GENTLY file frog, points, and rails to the same level. THE SWITCH IS BASIACLLY FINISHED!

## **Step #9 "Details (Optional)"**

Included in the kit are 14 rail-braces that can be cemented to the ties in the point area. Joint bars can be used to simulate rail joints and bolt bars can be cemented to the "Frog Block". In addition, with some care while adding ballast, you can leave "air" open space under some of the rail between a few ties (this looks very real!)

Also included are parts to make a "Switch Stand". The "Switch Stand" can be installed as a dummy, or if you are brave, it can have an animated target (Activated by the "Throw-Bar"). The following are tips to assembling the animated switch stand.

**Do not remove any parts from the sprue until instructed to do so.** Carefully clean the switch stand frame of any whiskers, or flash while it is still on the sprue. Now cut the frame from the sprue and cement it to the base while the **base is still attached to the sprue**. Let dry and cut base from the sprue. Note that the cap has a tiny locating lobe that should align with the gap in the switch stand frame top. Cement base and frame into the switch stand top cap, again, while the cap is attached to the sprue. Let dry and **do not** remove. Clean out the hole with a needle or a #70 - #72 drill (Clearance for .020 diameter wire). Cut the stand from the sprue. Carefully de-burr and remove the tiny lever from the sprue. Cement the lever into place between the tiny ribs on the top of the cap and let dry.

Locate and remove the tiny "Pivot / Cam" piece. With the head tie piece in position under the "Throw-Bar", Raise the end of the "Throw-Bar" and place the "Pivot / Cam" into position with the tiny cam post in the cam post slot of the "Throw-Bar". Place the switch stand assembly over the "Pivot / Cam" post and manually operate the switch and "Throw-Bar". The "Pivot / Cam" should rotate about 90°. Adjust the rotation is by slightly moving the head tie and switch stand assembly in or away from the switch "Tie Block". Cement a target of your choice to the .020 wire let dry. Insert the target and wire into switch stand and "Pivot / Cam" hole and test. When everything is working, glue the switch stand base to the head tie with a tiny dab of "AC" cement. Apply cement to the outer most edge of the base being careful not to let any glue run down inside the "Throw-Bar" area, and let dry. Finally, pin or pin and glue the "Head Tie", and switch stand assembly to the roadbed at the position you desire. Re-position the target to the proper setting. When satisfied, apply a **tiny** drop of "AC" cement to secure the target shaft. **Obviously, considerable care must be taken when painting, ballasting, and weathering. We recommend using dry chalks for applying rust stains etc. around the switch stand, point, and head tie assembly.**



**Frog Detail**



**Stand & Brace Detail**



**Point Detail**